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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,334	01/27/2004	Bradley L. Todd	2003-IP-010496	9877

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EXAMINER	
SUCHFIELD, GEORGE A	
ART UNIT	**PAPER NUMBER**
3676	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/765,334	Applicant(s) TODD ET AL.	
	Examiner George Suchfield	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/10/04; 7/16/04; 9/10/04; 12/6/04; 12/20/04; 3/24/05; 6/22/05; 8/10/05; 7/25/05; 8/18/05; 10/13/05; 12/9/05

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 5, 14, 18-20 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4, 5, 14, 18-20 and 25 are deemed indefinite in being drawn to improper Markush groupings. As noted in MPEP Section 2173.05(h), the use of the term "comprising" or "comprises" is improper in setting forth the Markush grouping. Accordingly, in line 1 or 2 of each of these claims, the transitional phrase "comprises" must be changed to -- is selected from the group consisting of -- or -- is -- .

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-11 and 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erbstoesser et al (4,387,769).

Erbstoesser et al discloses a process of fracturing a subterranean formation with a fracturing fluid comprising a fluid loss agent which comprises a degradable material, such as a polylactide. Insofar as such degradable material of Erbstoesser et al corresponds to the degradable material, such as polylactide or polylactic acid, utilized in the fracturing method of claims 1, 3, 4 and 5, it is deemed that such degradable material of Erbstoesser et al will inherently or necessarily also be "deformable". Further with respect to claim 1, although a "viscosifier" for the fracturing fluid is not explicitly set forth, Erbstoesser et al discloses that the fracturing fluid may "contain other components, additives, and the like known to those skilled in the art". Accordingly, "judicial notice" is taken that such conventional additives in the fracturing art would include or encompass a viscosifier. Thus, to employ a viscosifier in the fracturing fluid injected in the process of Erbstoesser et al would have been an obvious matter of choice or design, in order to ensure the formation fracturing will occur, and to the extent desired.

As per claim 2, it is deemed the fracturing fluid will inherently or necessarily be recovered after the fracturing operation, which is also the purpose of the fluid loss agent being degradable - to facilitate its recovery from the formation(s).

It is deemed that the steps or limitations of claims 6 and 7 are encompassed by the use in Erbstoesser et al (note col. 3, lines 1-11) of the poly(D,L-lactide) fluid loss agent.

As per claims 8-10, the fluid loss control agent of Erbstoesser et al (note col. 4,l lines 34-50) may be of a size or size range which includes or encompasses the size range(s) of these

claims, with any difference deemed an obvious matter of choice or design based on, e.g., the characteristics or composition of the subterranean formation(s) encountered in the field.

As per claim 11, the recited concentration range of fluid loss agent in the fracturing fluid appears encompassed by the range of fluid loss agent utilized in the process of Erbstoesser et al (note col. 6, lines 59-68).

As per claims 15-17, the fracturing fluid of the process of Erbstoesser et al includes a base fluid, which may be oil or water, with the range or amount specified in claim 17 deemed encompassed by Erbstoesser et al.

As per claims 18-25, judicial notice is taken that all of the recited fracturing fluid components or additives fall within the gamut of "other components, additives ... known to those skilled in the art" suitable for use in Erbstoesser et al (col. 6,lines 44-58); hence, their use in the process of Erbstoesser et al would have been an obvious matter of choice or design. For example, depending on the integrity or clay content of the formation(s), one skilled in the art would obviously employ one or more commercially-available proppants or clay inhibitor agent. Also, the use of buffer compounds with polysaccharide viscosifiers are well known in the art as such viscosifier can be pH-sensitive.

6. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erbstoesser et al (4,387,769), as applied to claim 1 above, and further in view of Williamson et al (5,032,297).

Erbstoesser et al (note col. 4, lines 51-56) discloses that another fluid loss control agent may be included in their fracturing fluid in conjunction with their degradable polyester/polylactide fluid loss agent. Williamson et al (note col. 1, lines 50-68) discloses an

exemplary fluid loss agent comprising a starch-based polymer, i.e., a starch or modified starch compound.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to include a starch-based polymer fluid loss agent in admixture with the polyester fluid loss agent in the fracturing fluid injected in the process of Erbstoesser et al, as taught by Williamson et al, in order to enhance the overall fluid loss control effected during the fracturing operation, as called for in claims 12-14. Further with respect to claim 13, since both the polyester/polylactide and starch-based fluid loss agents of Erbstoesser et al, as modified, correspond to that of applicant's claims, it follows that such fluid loss agent(s) will then inherently or necessarily also be "deformable" and thus "obstruct pores in the formation".

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Other references disclose methods of treating or fracturing a well employing exemplary fluid loss control agents.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is 571-272-7036. The examiner can normally be reached on M-F (6:30 - 3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George Suchfield

George Suchfield
Primary Examiner
Art Unit 3676

Gs
December 21, 2005